

REMARKS

This is in response to the Office Action dated April 17, 2006, in which all pending claims 1-20 were rejected. With this Amendment, claims 1, 11 and 20 have been amended, claims 9 and 19 have been cancelled and claims 21 and 22 have been newly added. No new matter has been added to the application as a result of the claim amendments and the newly added claims. Applicants respectfully request reconsideration and allowance of all pending claims.

On page 2 of the Office Action, FIGS. 1 and 2-1 were objected to for not including a legend such as --Prior Art--. At the bottom of page 2 of the Office Action, the Examiner states that “a figure is only acceptable without a ‘Prior Art’ label if that which is depicted incorporates the novel feature of the invention.” Applicant respectfully points out that FIG. 2-1 shows an example read channel 200 that includes data detection and recovery circuitry 204 (shown in greater detail in FIG. 2-2), which incorporates features of exemplary embodiments. Example disc drive 100, of FIG. 1, includes the example read channel of FIG. 2-1. Thus, FIGS. 1 and 2-1 incorporate novel features of the present invention and therefore are acceptable without a label of “Prior Art” according to the statement on page 2 of the Office Action. Thus, the objection should be withdrawn.

On page 4 of the Office Action, claims 1, 2, 7, 8, 11, 12, 17, 18 and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by Kavcic et al., U.S. Patent No. 6,438,180 (hereinafter referred to as Kavcic).

On page 7 of the Office Action, claims 3-6, 9-10, 13-16 and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kavcic.

With this Amendment, independent claims 1, 11 and 20 have been amend to clarify that computation of branch metric values as a function of transition jitter statistics corresponding to signal samples is based on a statistical model. The statistical model has a transition jitter variable that relates transition jitter, which depends upon positions of data transitions on a medium, to signal sample noise in an amplitude domain.

Support for the claim amendments can be found, for example, in Equation 2 and its

corresponding description on page 8 of the specification.

Kavcic does not teach or expressly or impliedly suggest the above-noted elements of independent claims 1, 11 and 20. Thus, claims 1, 11 and 20 are believed to be allowable. Claims 2-8 depend from claim 1 and claims 12-18 depend from claim 11. Thus, claims 2-8 and 12-18 are believed to be allowable at least by virtue of their dependence from allowable independent claims 1 and 11, respectively.

Claims 21 and 22 have been newly added in the application. These claims include that "the statistical model is a Taylor series model," which is supported, for example, on pages 7 and 9 of the application. Kavcic includes nothing about a Taylor series model and therefore claims 21 and 22 are believed to be allowable.

In view of the foregoing, Applicant respectfully requests reconsideration and allowance of pending claims 1-8, 10-18 and 20-22. Favorable action upon all pending claims is solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: /Alan G. Rego/

Alan G. Rego, Reg. No. 45,956
900 Second Avenue South, Suite 1400
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

AGR:kmm